

ABSTRACT OF THE DISCLOSURE

In the diesel engine of the present invention, an early-stage injection (A) is performed so that this injection is divided into a plurality of injections during the compression stroke of the engine, and a main injection (B) is performed following the completion of this early-stage injection. Furthermore, the early-stage injection is performed using an amount of fuel and timing which are such that the generation of heat caused by fuel of the early-stage injection occurs in the vicinity of compression top dead center, and the main injection is performed using an amount of fuel and timing which are such that the generation of heat caused by fuel of the main injection occurs after the generation of heat caused by fuel of the early-stage injection has been completed. Since the early-stage injection is divided into a plurality of injections, the adhesion of fuel to the inside walls of the cylinder is prevented, and pre-mixing of the fuel is promoted. Since the generation of heat caused by fuel of the main injection occurs after the generation of heat caused by fuel of the early-stage injection has been completed, there is no sudden entry of fuel injected by the main injection into the hot flame inside the cylinder; accordingly, the aggravation of smoke is prevented.